

CLAIMS

1. A method of making a motor stator including an inner stator part and an outer stator part, the method including placing the inner stator part inside the outer stator part, and rotating the inner stator part with respect to the outer stator part such that the inner stator part is retained with respect to the outer stator part by means of an interference fit.
2. A method according to claim 1 wherein a clearance is provided between the inner and outer stator parts prior to relatively rotating.
3. A method according to claim 1 wherein the inner and outer stator parts are formed from laminations.
4. A method according to claim 3 which includes the steps of forming from metal sheet material a plurality of laminations, each lamination including a first lamination part and a second lamination part, either at least one of the first lamination parts being formed from material surrounding one of the second lamination parts or at least one of the second lamination parts being formed from material removed from the interior of one of the first lamination parts, stacking a plurality of first lamination parts to form the outer stator part, and stacking a plurality of second lamination parts to form the inner stator part.
5. A method according to claim 1 wherein the inner stator part includes an inner stator ring from which extend radially outwardly a plurality of stator pole pieces, the method including winding onto the pole pieces coils prior to placing the inner stator part in the outer stator part.

6. A method according to claim 5 wherein the inner stator ring is thin walled so as to provide a substantial resistance to transmission of magnetic flux from one pole to the next.

7. A method according to claim 5 wherein the pole pieces are provided by separate components, and are assembled to provide an inner stator part with an inner ring wall of non-metallic material.

8. A method according to claim 5 wherein the outer stator part includes a plurality of axially extending grooves, one for each pole piece of the inner stator part, end surfaces of the pole pieces upon relative rotation of the inner and outer stator parts, engaging with areas of an inner wall of the outer stator part adjacent their respective grooves as an interference fit.

9. A method according to claim 8 wherein the end surfaces of the pole pieces and/or the areas of the inner wall with which they engage, are shaped so that as the inner and outer stator parts are relatively rotated upon assembly, the interference between the end surfaces and the areas of the inner wall of the outer stator part increases.

10. A method according to claim 8 wherein the end surfaces of the pole pieces and/or the areas of the inner wall with which they engage include a protuberance which enhances the interference fit between the pole piece end surfaces and the inner wall areas.

11. A method of making a motor stator including a plurality of laminations, the method including the steps of forming from metal sheet material a plurality of laminations, each lamination including a first lamination part and a second lamination part, either at least one of the first lamination parts being formed

from material surrounding one of the second lamination parts or at least one of the second lamination parts being formed from material removed from the interior of one of the first lamination parts, stacking a plurality of first lamination parts to form an outer stator part, stacking a plurality of second lamination parts to form an inner stator part, and assembling the inner and outer stator parts to form the stator.

12. A method of making a motor stator including a plurality of laminations, the method including the steps of forming from metal sheet material a plurality of laminations, each lamination including a first lamination part and a second lamination part, either at least one of the first lamination parts being formed from material surrounding one of the second lamination parts or at least one of the second lamination parts being formed from material removed from the interior of one of the first lamination parts, stacking a plurality of first lamination parts to form an outer stator part, stacking a plurality of second lamination parts to form an inner stator part, placing the inner stator part inside the outer stator part, and rotating the inner stator part with respect to the outer stator part such that the inner stator part is retained with respect to the outer stator part by means of an interference fit.